

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/002285

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C22B13/04 H01M10/54

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C22B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 883 348 A (ACOVENO FLOYD A ET AL) 13 May 1975 (1975-05-13)	1-8
Y	Claim 1; example 1; Figure 2	1
X	BEGUM D A ET AL: "A STUDY ON THE DISSOLUTION OF LEAD SULPHATE FROM WASTE BATTERIES WITH ETHANOLAMINES" HYDROMETALLURGY, ELSEVIER SCIENTIFIC PUBLISHING CY. AMSTERDAM, NL, vol. 22, no. 1/2, 1 June 1989 (1989-06-01), pages 259-266, XP000050290 ISSN: 0304-386X Page 260: Experimental	1-7
Y	US 5 690 718 A (SABIN CULLEN M) 25 November 1997 (1997-11-25) Column 10, lines 56-66	1
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

13 October 2004

Date of mailing of the international search report

22/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentlaan 2
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Authorized officer

Bjoerk, P

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 018 567 A (LA POINT ALBERT E) 19 April 1977 (1977-04-19) Claim 1	1
X	GB 2 073 725 A (ASS LEAD MFG LTD) 21 October 1981 (1981-10-21) Page 1, lines 33-42	1,6,7
A	FERRACIN L C ET AL: "Lead recovery from a typical Brazilian sludge of exhausted lead-acid batteries using an electrohydrometallurgical process" HYDROMETALLURGY, ELSEVIER SCIENTIFIC PUBLISHING CY. AMSTERDAM, NL, vol. 65, no. 2-3, September 2002 (2002-09), pages 137-144, XP004377792 ISSN: 0304-386X Paragraphs 2.1, 2.2, 2.3.	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/002285

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3883348	A	13-05-1975	NONE	
US 5690718	A	25-11-1997	AU WO	7164296 A 9712998 A1
US 4018567	A	19-04-1977	US	3892563 A
GB 2073725	A	21-10-1981	NONE	

PATENT COOPERATION TREATY

PCTINTERNATIONAL APPLICATION STATUS FORM
(IASF)**Date of issue of this IASF:**(the information contained in this IASF reflects the status
of the international application as of this date)
09 February 2006 (09.02.2006)

From the INTERNATIONAL BUREAU

To:

UNITED STATES PATENT AND TRADEMARK OFFICE
Commissioner for Patents,
P.O.Box 1450
Alexandria VA 22313 -1450
ETATS-UNIS D'AMERIQUE

I - INTERNATIONAL APPLICATION		
I-1	International application number:	PCT/IB2004/002285
I-2	International filing date:	12 July 2004 (12.07.2004)
I-3	Earliest priority date:	18 July 2003 (18.07.2003)
I-4	Title of the invention:	PROCESS FOR THE HIGH YIELD RECOVERY OF LEAD FROM SPENT LEAD- ACID BATTERIES WITH REDUCED ASSOCIATED PRODUCTION OF SLAG AND GASEOUS EMISSIONS
I-5	International Patent Classification:	⁷ C22B 13/04, H01M 10/54
I-6	Language of filing:	English
I-7	The State for which the Office acts as a designated Office has been designated in the international application:	Yes
I-7-1	Indication of the State(s) designated in the international application in respect of which the Office acts as a designated Office (only where the designated Office is a regional Office):	Not applicable
I-7-2	The international application has been considered withdrawn in a declaration made by the receiving Office on (date):	Not applicable
I-7-3	The international application or the designation of the State for which the Office acts as a designated Office has been withdrawn by the applicant (date on which withdrawal became effective):	Not applicable
I-7-4	Kind of protection or treatment:	Patent
I-7-4-1	Identification of parent application or parent grant:	Not applicable
I-8	Date of receipt of record copy by the International Bureau:	14 July 2004 (14.07.2004)
I-9	Applicant(s) and/or inventor(s) for the State(s) for which the Office acts as a designated Office	
I-9-1	Applicant and/or inventor	
I-9-1-1	Data currently on record	
I-9-1-1-1	Applicant's and/or inventor's name:	SOMMARIVA, Antonio
I-9-1-1-2	Address:	Via Patrioti 105 I-43039 Salsomaggiore Italy
I-9-1-1-3	State of nationality:	IT
I-9-1-1-4	State of residence:	IT

I-9-1-1-5	This person is:	Applicant and inventor
I-9-1-2	Data previously on record (in case of a change recorded by the International Bureau under Rule 92bis):	No data previously on record available for inclusion in this IASF; any such data is available from the IB.
I-9-1-3	Indication of the State(s) designated in the international application for the purposes of which the person is an applicant and/or inventor (only where the designated Office is a regional Office):	Not applicable
I-9-2	Applicant and/or inventor	
I-9-2-1	Data currently on record	
I-9-2-1-1	Applicant's and/or inventor's name:	MODICA, Giovanni
I-9-2-1-2	Address:	Via Brocchi, 24 I-20100 Milano Italy
I-9-2-1-3	State of nationality:	IT
I-9-2-1-4	State of residence:	IT
I-9-2-1-5	This person is:	Applicant and inventor
I-9-2-2	Data previously on record (in case of a change recorded by the International Bureau under Rule 92bis):	No data previously on record available for inclusion in this IASF; any such data is available from the IB.
I-9-2-3	Indication of the State(s) designated in the international application for the purposes of which the person is an applicant and/or inventor (only where the designated Office is a regional Office):	Not applicable
I-10	The international application contains sequence listings and/or tables filed under Section 801(a) of the Administrative Instructions:	No
I-11	The following declaration(s) referred to in Rule 4.17 made for the purposes of the State(s) for which the Office acts as a designated Office was (were) contained in the international application as filed or received by the International Bureau before the expiration of the time limit under Rule 26r.1:	
I-11-1	Declaration(s) as to the identity of the inventor (Rules 4.17(i) and 51bis.1(a)(i)):	Not applicable
I-11-2	Declaration(s) as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)):	Not applicable
I-11-3	Combined declaration(s) as to the identity of the inventor (Rules 4.17(i) and 51bis.1(a)(i)) and the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)) :	Not applicable
I-11-4	Declaration(s) as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):	Not applicable
I-11-5	Declaration(s) of inventorship (only for the purposes of the designation of the United States of America) (Rules 4.17(iv) and 51bis.1(a)(iv)):	Not applicable
I-11-6	Declaration(s) as to non-prejudicial disclosures or exceptions to lack of novelty (Rules 4.17(v) and 51bis.1(a)(v)):	Not applicable
II - PRIORITY CLAIM(S)		
II-1	Number of earlier application:	01257/03
II-1-1	Filing date of earlier application:	18 July 2003 (18.07.2003)
II-1-2	Country in which, or regional Office or receiving Office with which earlier application was filed (where the earlier application is an ARIPO application, indication of the country party to the Paris Convention or Member of the	CH

	World Trade Organization for which that earlier application was filed):	
II-1-3	Priority document received at the International Bureau on:	14 July 2004 (14.07.2004)
II-1-4	Priority document submitted or transmitted in compliance with Rule 17.1(a) or (b) (only where priority document was received at the International Bureau):	Yes
II-1-5	Applicant has requested the receiving Office to prepare and transmit the priority document in compliance with Rule 17.1(b) (only where no priority document was received at the International Bureau):	Not applicable
II-1-6	Priority claim withdrawn by a notice from the applicant (date on which withdrawal became effective; if the notice of withdrawal was received by the International Bureau after completion of technical preparations for international publication, such withdrawal will not have been reflected in the pamphlet) (Rule 90bis.3):	Not applicable
II-1-7	Declaration by the receiving Office or the International Bureau that priority claim is considered, for the purposes of the procedure under the Treaty, not to have been made (date of declaration) (Rule 26bis.2(b)):	Not applicable
III - INTERNATIONAL SEARCH REPORT		
III-1	International Searching Authority carrying out the international search:	ISA/EP
III-2	International search report or declaration under Article 17 (2)(a) received by the International Bureau:	Yes
III-3	Corrected version(s) of the international search report (if any) received by the International Bureau:	Not applicable
IV - REFERENCE TO DEPOSITED BIOLOGICAL MATERIAL		Not applicable
V - INTERNATIONAL PUBLICATION		
V-1	International publication number:	WO 2005/007904 (A1)
V-2	International publication date:	27 January 2005 (27.01.2005)
V-3	Language of publication:	English
V-4	Number of figure of drawing published together with the abstract:	Not applicable
V-5	Republication(s) (republishing date(s) and reason(s)):	Not applicable
VI - INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I)		
VI-1	International preliminary report on patentability (Chapter I) issued by the International Bureau on:	Not applicable
VI-2	Corrected version(s) of the international preliminary report on patentability (Chapter I) (if any) issued by the International Bureau on:	Information not available for inclusion in this IASF
VII - INTERNATIONAL PRELIMINARY EXAMINATION		
VII-1	A demand electing the State(s) for which the Office acts as an elected Office has been received by the International Preliminary Examining Authority (where the elected Office is a regional Office, indication of the State(s) elected in respect of which the Office acts as an elected Office):	Yes 03 February 2005 (03.02.2005)
VII-2	The election was made before/after the expiration of 19 months from the priority date:	Before
VII-3	The election or the demand containing the election of the State(s) for which the Office acts as an elected Office has been considered not to have been made or submitted in a	Not applicable

	declaration made by (the International Bureau/the competent International Preliminary Examining Authority) on (date):	
VII-4	The election or the demand containing the election of the State(s) for which the Office acts as an elected Office has been withdrawn by the applicant (date on which withdrawal became effective being the date of receipt of the notice of withdrawal by the International Bureau) (Rule 90/s.4):	Not applicable
VII-5	International Preliminary Examining Authority carrying out international preliminary examination:	IPEA/EP
VII-6	International preliminary examination report received by the International Bureau:	No
VII-7	Corrected version(s) of the international preliminary examination report (if any) received by the International Bureau:	Information not available for inclusion in this IASF

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